

**Before the
Federal Communications Commission
Washington, D.C. 20554**

**In the Matter of Review of the
Emergency Alert System**

EB Docket No. 04-296

To: The Commission

EX PARTE COMMENTS OF GLOBAL SECURITY SYSTEMS, LLC

Global Security Systems, LLC (“GSS” or “Company”), acting with counsel, hereby respectfully submits these ex parte comments relating to an important issue raised in the Commission’s Fifth Report and Order (FCC 12-7), released in the captioned on January 10, 2012. Specifically, the Company’s comments herein focus on the matter of text-to-speech (“TTS”) software.¹

I. INTRODUCTION – GSS’ INTEREST IN THIS PROCEEDING

GSS is a systems integrator, service provider, and manufacturer of ALERT FM, an FM radio-based emergency alert system, GSSNet, satellite delivery system, and GSSNet Alert Studio, a Common Alerting Protocol (“CAP”)-Emergency Alert System (“EAS”) message delivery system and message aggregator. GSS has participated in the development of Integrated Public Alert and Warning System (“IPAWS”)-based systems, is a member of the Commercial Mobile Alert Service systems committee, and is actively involved with several EAS and CAP committees. The GSS nationwide GSSNet satellite delivery system for emergency alerts

¹ *In the Matter of Review of the Emergency Alert System, Fifth Report and Order*, 27 FCC Rcd 642 (2012) (“*Fifth Report and Order*”). The discussion of text-to-speech and speech-to text software is found in paragraph 38 of the *Fifth Report and Order*.

currently is in operation now at over 300 locations and growing daily. It includes the ability to generate and deliver CAP messages as well as consume and aggregate these messages to interface with the Federal Emergency Management Agency ("FEMA") IPAWS.

II. GSS' CONCERNS REGARDING COMMISSION'S POSITION ON TEXT-TO-SPEECH

GSS strongly supports the positions on TTS submitted by FEMA and the EAS-CAP Industry Group on March 12, 2012.² Specifically, GSS supports the following points:

1. Without an audio file and prohibition of TTS, no voice element will be aired with the EAS message. Only the header tones, Attention Signal³ and EOM tones will be heard by the listener. This would, of course, have a severe impact on the usefulness of the alert message for overall listening population. Listeners may know that there is an emergency situation because they may have heard the header tones, Attention Signal and EOM tones, but they will have no information about the nature of the emergency. The potential for widespread confusion and/or disregard for the EAS could be the result.
2. The prohibition on TTS will also have a direct impact on the present and/or planned operations several CAP EAS Originators, including the FEMA IPAWS system itself.³ The GSS Alert Studio product utilizes TTS, used by validated emergency managers in multiple states.⁴ The IPAWS system would be dependent upon the use of TTS translation technology at the distant CAP receiving device level. Similarly, the National Weather Service ("NWS") CAP feed relies on TTS conversion at the EAS-CAP receiving device level. NWS has been using text-to-speech for over 10 years (see <http://www.nws.noaa.gov/nwr/VIPstatus.htm>)
3. GSS also brings to the Commission's attention that prohibiting use of TTS in CAP receiving devices will likely present complications for both already-deployed and already planned CAP state aggregator and distribution systems. GSS has four (4) state-level systems (origination, aggregation and satellite delivery) and five (5) additional states (origination and aggregation only) are similarly centered around the required use of TTS translation by CAP receiving devices. GSS also has approximately one hundred twenty (120) local county portals that will be using this feature TTS in twelve (12) states.

² Fifth Report and Order Petition For Reconsideration submitted by Antwane Johnson, Division Director, IPAWS, FEMA; Comments from the EAS-CAP Industry Group on the Commission's Fifth Report and Order, March 12, 2012.

³ See Exhibit 1 regarding use of TTS in Alabama.


⁴ See Exhibit 2 for user interface and information regarding locations.

4. GSS also notes of the likelihood of quantitatively larger bandwidth requirements for EAS Participants, EAS CAP originators, and the interconnecting IP relay networks because of the need to originate and transport both the CAP message and the accompanying audio file. This scenario may not have been anticipated (or supported) by some already-deployed state CAP systems. Further, the transition from analog-based to digital-based EAS systems based on the CAP standard will not realize the benefits if large bandwidth requirements are needed. It will deter the success of the entire process.

For all the foregoing reasons GSS respectfully supports the FEMA request that the Commission reconsider the TTS prohibition, to allow usage of this critical backup capability (in event that an audio file is missing or damaged) and to ease the operational and cost burden of CAP EAS usage on the parts of both EAS Participants and CAP EAS originators. As did FEMA and the EAS-CAP Industry Group, GSS asks the Commission to amend its position in the *Fifth Report and Order* by removing the exception to the ECIG guidelines on TTS.

Respectfully submitted,

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Dated: March 26, 2012

EXHIBIT 1

Alabama Chooses New EAS Network

FM Alert Satellite/IP Operation Passes First Required Monthly Test

USERREPORT

BY LARRY WILKINS
Alabama EAS Coordinator/
ABIP Inspector
Alabama Broadcasters Assoc.

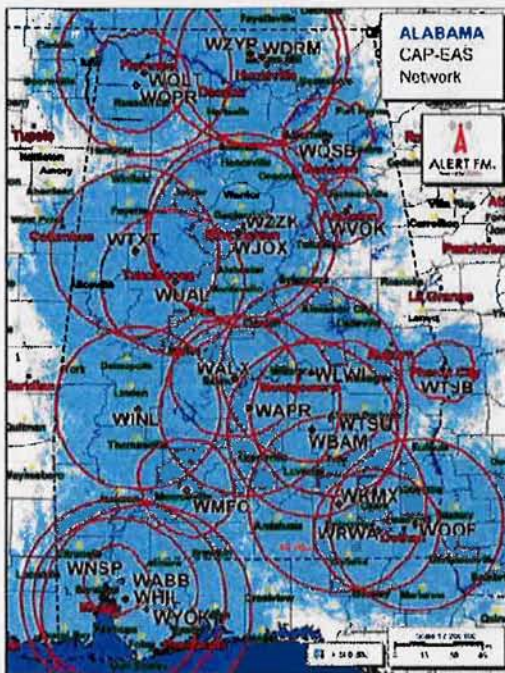
HOOVER, ALA. — During the transition from EBS to EAS in 1996, the state of Alabama was still using the "daisy-chain" method of distributing EAS alerts. A couple of years later we discovered that a number of states had started other means of distribution.

According to FCC rules, all broadcast stations and cable systems must monitor two sources capable of relaying messages from the White House. The key word here is "sources." That could mean radio stations, Internet, subchannels, satellite, etc.

The state decided to use the services of two statewide networks already in place: the Alabama Public Television Network (APT) which has nine transmitters that cover almost the entire state; and the Alabama Digital Satellite Network (ADSN), a regional sports network, which had more than 60 downlinks across the state.

NEW APPROACH

A revision to the state plan required all stations to monitor these two sources for EAS alerts and test. This distribution method worked very well for a number



of years.

Recently, ADSN was purchased and move out of the state, leaving the state with only one distribution network. Sharon Tinsley, Alabama Broadcast Association (ABA) president, and I met with several companies to discuss possible solutions to the situation.

We decided to use the services of Global Security Systems, based in Jackson, Miss. GSS already had GSSNet, their satellite data delivery system, online at a number of stations in Alabama as part of their Alert FM system. Therefore, it only made sense to build on this network.

To facilitate monitoring two sources for EAS messages, the Alabama Emergency Management Agency divided the state into eight operational areas. Based on these eight areas, ABA designated two full-power FM stations in each of the areas to install GSSNet downlink equipment. Equipment also was installed at two public radio networks, both of which have multiple stations around the state. To date, there are 23

markets set up with the GSSNet satellite equipment. The GSSNet equipment broadcasts to the new Sage Alerting Systems CAP/EAS units by means of multicast IP. I have been busy traveling to these stations to program the GSS units with the stations new Sage Digital Encoder EAS equipment.

In August, we ran our first Required Monthly Test (RMT) using the GSSNet system. The comments from the field were all positive. The system uses GSSNet Alert Studio, a secure Web interface, for message origination, which allows alerts to be sent from any location. Alerts are sent using the CAP protocol, which is then converted to audio with the text-to-speech converters in the Sage Digital Encoder units. As an alternative, you can also attach audio files to the message. This is useful should the governor need to send an alert using his own voice. JPEG photos can also be distributed

with the alerts. Alerts may be sent to all counties for statewide alerts or a selected number of counties for regional types of events.

Training sessions have been held with personnel at the Department of Public Safety responsible for issuing Amber Alerts and the Emergency Operational Center, which handles alerts from the governor's office.

The entire startup project was funded by the Alabama Broadcasters Association with no cost to the broadcast stations. Additional expansion of the network is being planned for the future.

Overall the Alabama Broadcasters Association is satisfied with GSSNet and its Alert Studio application. We would recommend it any state for CAP-EAS message delivery.

For information, contact Jim Lowery at Global Security Systems in Mississippi at (866) 896-5180 or visit www.gssnet.us.

TECHUPDATE

AARLON: CONTROL AND ACQUISITION

Aarlon is a broadcaster's remote control and data acquisition system with a browser interface accessed via TCP/IP.

It handles relaying transmitter site information including temperature, video and real-time audio. It also provides 24 status (contact closure) indications, 16 meter or voltage readings along with 34 NO or NC relay command control functions. Readings and functions are sent to any computer via password-protected Internet browser connection.

The system also has a voice modem to allow POTS callers (via password) to gain access to the same IP-based graphic information and commands via DTMF tones, with voice responses from Aarlon as the user seeks information or enacts commands.

Aarlon has two on-board computers that process command relays, meter readings and status levels, and handle video and audio serviced up by the site.

For information call Bill Cordell at (713) 722-0169 or visit www.aarlon.com.



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NEWSLETTER

New EAS System in Alabama Speeds Alerts

October 13, 2011

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In the over 40 years I've known lots of broadcast engineers, it's hard to remember times when they showed much enthusiasm and satisfaction over anything...especially the Emergency Alert System (EAS). They are just not an outwardly enthusiastic group. Well, I found one who's wearing his enthusiasm and satisfaction quite brightly. He's Larry Wilkins, state EAS coordinator for Alabama. Alabama has upgraded its statewide EAS system, which Wilkins says is unlike any other system in the country and he's clearly proud.

The new system does a number of things differently - all designed to make sure EAS alerts are heard and seen by the public faster and that they contain more information. One of the things Wilkins is particularly proud of is the new system's use of the Common Alerting Protocol (CAP). He says it provides important new capability for public safety officials to create messages that can contain much more information than the old way including pre-recorded audio messages (say, recorded by the governor or other officials), digital attachments (say, pictures of Amber Alert victims), and text-to-speech messages (without counting on dispatchers to be announcers). Plus, he says, capability will be enhanced even more through the new system's ability to work with [IPAWS](#), the federal alerting initiative.

Even with the new capabilities, Wilkins says public officials will have fewer activation steps through the system Alabama bought (called [GSSNet Alert Studio](#)). He says the two tests conducted so far were "100% successful both times", and public safety officials were enthused about how simple it was.

Wilkins says they were able to build the system statewide for around \$60,000 which was financed by the [Alabama Broadcasters Association](#) at no cost to local officials or radio and TV stations.

Wilkins says ABA felt strongly that they really needed to get the system running soon to have something more reliable than the old system.

Wilkins says the old "daisy chain" system formerly used in Alabama and currently used in most other states is "not really reliable because of potential breaks in the system". When it breaks at a single point, no one downstream gets the message. Through the new system, says Wilkins, the messages are delivered "first hand" to broadcasters.

No doubt about it, Wilkins is enthused. He said it was a "real treat to get it working". I'm sure he wouldn't mind talking to public safety officials elsewhere outside Alabama who have questions. And we sure wouldn't mind putting you in touch with him.

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Alabama Designates The GSS Alert Studio for CAP-EAS Alerts

First Statewide Satellite CAP-EAS Delivery to LP1/LP2 FM Stations with Sage Endec

GSSNet Partners with HughesNet to Add Internet Dissemination to its FM Platform



June 15, 2011 -- Marking the first statewide Common Alert Protocol (CAP)-compliant rollout in the United States for creating and retrieving emergency alerts, the GSS Alert Studio from Global Security Systems (GSS) has been designated the official origination and retrieval tool for Alabama's Emergency Alert System (EAS).

"Fast and secure access to shared information is essential for federal, state, and local agencies to prepare for emergencies and to respond in an effective and coordinated manner when disaster strikes," observed Larry Wilkins, Chairman, Alabama State Emergency Communications Committee (SECC). "That demands the kind of integrated and highly reliable information network architecture that the GSS Alert Studio delivers."

Once generated in the GSS Alert Studio, the CAP-EAS messages are sent across the GSSNet dedicated satellite network to Sage Endec units in Local Primary 1 and 2 (LP1/LP2) FM radio stations across Alabama. The GSS Alert Studio can create and retrieve alerts in multiple formats -- WAV/MP3 files, live text to speech (including in Spanish), and live recorded messages -- that are disseminated on a national, regional or hyper-local basis to receivers of AM, FM and HD radio signals.

"GSS delivers the CAP-EAS solution that broadcasters need to meet the Federal Communications Commission (FCC) requirements," observed Sharon Tinsley, President of the Alabama Broadcasters Association (ABA) and the National Association of State Broadcast Associations (NASBA). "The GSS System is a benefit to Alabama stations and their public service responsibilities."

In addition to dissemination of alert messages over the GSSNet, the GSS Alert Studio secured web-portal design now allows the Emergency Operation Center (EOC) to create and distribute CAP-EAS messages statewide through a dedicated Internet broadband satellite uplink provided by HughesNet.

"Satellite communications solutions from GSSNet with HughesNet provide the vital links when disaster strikes, providing an instant Internet infrastructure when terrestrial communications are damaged, overloaded or completely knocked out," said Tony Bardo, Vice President of Government Solutions, Hughes.

Recently, GSS's ALERT FM system delivered life-saving emergency audio and text alert messages to Alabama residents during the devastating tornadoes that tore across the South. ALERT FM uses FM radio platform and Radio Broadcast Data Service (RBDS) to deliver text alerts up to 240-characters to any electronic device with ALERT FM software and an enabled FM radio receiver chip.

"We are honored that the state of Alabama has selected the GSS Alert Studio with GSSNet and HughesNet dissemination along with ALERT FM as integral elements of its Emergency Alert System," noted Robert Adams, President and Chief Executive Officer, GSS. "We plan to provide this multi-formatted and dependable resource that is always in place and ready for action to other states soon."

The GSS Alert Studio, the GSSNet FM-based delivery platform, and the ALERT FM audio and text messaging system provide a complete end-to-end CAP source, transport, and broadcast dissemination system to cable, television, and radio, as well as wireless devices, including mobile phones.

About Hughes Network Systems

Hughes Network Systems, LLC (HUGHES) is the world's leading provider of satellite broadband for home and office, delivering innovative network technologies, managed services and solutions for enterprises and governments globally. HughesNet® is the #1 highspeed satellite Internet service in the marketplace, with offerings to suit every budget. To date, HUGHES has shipped more than 2.5 million systems to customers in over 100 countries, representing over 50 percent market share. Its products employ global standards approved by TIA, ETSI and ITU organizations, including IPoS/DVB-S2, RSM-A, and GMR-1.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes Network Systems, LLC (Hughes) operates sales and support offices worldwide, and is a wholly owned subsidiary of Hughes Communications, Inc. (NASDAQ: HUGH). For more information, please visit www.hughes.com.

About Global Security Systems and ALERT FM:

Global Security Systems (GSS) is a systems integrator, service provider, and manufacturer of the ALERT FM and GSSNet satellite delivery system. Global Security Systems has participated in the development of IPAWS-based systems, is a member of the Commercial Mobile Alert Service systems committee, and is actively involved with several EAS and CAP committees. The Global Security Systems nationwide GSSNet satellite delivery system for emergency alerts currently is in operation now at over 300 locations and growing daily. It includes the ability to generate and deliver CAP messages.

EXHIBIT 2

GSS EAS TEST

Alert Management

Create an Alert

Find an Alert

Create an Alert

From cwynn@gssnet.us

Message ID f9e2b054-fe40-b1f8-3f9a-f3df4086598f

Event Type DMO - Practice/Demo Warning

Message Type Update

Status Actual

Expires On 7/15/11 10:18 AM

Alert Text

Headline

Audio

Open

Record

Play

Stop

Preview CAP Alert

Reset Form

Send Alert

0 Areas Selected

Alabama State-Wide

Autauga

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